



*Florida Department of
Environmental Protection*

BP Oil Spill Response – State Perspective

EPA Region 4 Air Monitoring Workshop

Tampa, Fl

April 27, 2011

Tammy Eagan



Air Monitoring

	VOC (# samples)	SVOC (# samples)
FDEP		
Eastpoint	49	--
Ft. Walton	48	--
EPA		
Pensacola	139	102
Panama City	127	93

EPA Website



United States Environmental Protection Agency

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EPA Response to BP Spill in the Gulf of Mexico



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Air Data from the Gulf Coastline

In response to the BP oil spill, EPA monitored air, water, sediment, and waste generated by the cleanup operations. Ongoing response and restoration efforts are posted to [RestoreTheGulf.gov](#).

While emergency response data collection has ended, results continue to be available on this site. Any new data will continue to be posted to this site, and data will continue to be available here for the foreseeable future.

Much of the content of this site continues to be available for historical and information purposes, but we are no longer updating these pages on a regular basis.

Learn about odors from the BP Oil Spill
To report an odor please call – 1-866-448-5816

On this page:

- Real-time air monitoring for ozone and PM2.5 and hydrogen sulfide
- Air monitoring and sampling data for PM10, H2S, VOCs, and PAHs
- Download Air Monitoring and Sampling Data
 - Monitoring data
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- Trace Atmospheric Gas Analyzers (TAGA bus)
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- Daily Average Particulate Matter

You will need Adobe Reader to view some of the files on this page. See [EPA's PDF page](#) to learn more.

Real-time air monitoring for ozone and fine particulate matter (PM2.5) and hydrogen sulfide (H2S)

Government Response

- [RestoreTheGulf.gov](#): official federal government site for spill response and recovery
 - [File a claim](#)
 - [Report a concern](#)
 - [Volunteer](#)
 - [Hotlines and phone numbers](#)

Other federal government information:

- Worker health and safety:
 - [from OSHA](#)
 - [from CDC](#)
- CDC review of EPA data for possible adverse health effects
- OSHA sampling data
- White House response site
- NASA satellite imagery of the spill
- Sign up for text message alerts

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EPA Data Website

5/3/2010	Air	V02-2010C V02	100-41-4	Ethylbenz ND	ug/m3	0.69 ug/m3	N											4/3/2011	29.25274	-89.3575
5/3/2010	Air	V03-2010C V03	100-41-4	Ethylbenz ND	ug/m3	0.76 ug/m3	N											4/3/2011	29.31449	-89.3843
5/3/2010	Air	V04-2010C V04	100-41-4	Ethylbenz ND	ug/m3	0.76 ug/m3	N											4/3/2011	29.35714	-89.4561
5/3/2010	Air	C0120100C C01	100-41-4	Ethylbenz ND	ug/m3	0.79 ug/m3	N											4/3/2011	29.94562	-89.9721
5/3/2010	Air	E101908-0 MSAV002	100-41-4	Ethylbenz ND	ug/m3	2.3 ug/m3	N											4/3/2011	30.39013	-89.0497
5/3/2010	Air	C0220100C C02	100-41-4	Ethylbenz ND	ug/m3	0.78 ug/m3	N											4/3/2011	29.86603	-89.8911
5/3/2010	Air	E101908-0 FLAV002	100-41-4	Ethylbenz ND	ug/m3	1.7 ug/m3	N											4/3/2011	30.1289	-85.7381
5/3/2010	Air	C0320100C C03	100-41-4	Ethylbenz ND	ug/m3	2.2 ug/m3	N											4/3/2011	29.82209	-89.6086
5/3/2010	Air	C0120100C C01	100-41-4	Ethylbenz ND	ug/m3	0.319 ug/m3	N											4/3/2011	29.94562	-89.9721
5/3/2010	Air	C0220100C C02	100-41-4	Ethylbenz ND	ug/m3	0.321 ug/m3	N											4/3/2011	29.86603	-89.8911
5/3/2010	Air	C0320100C C03	100-41-4	Ethylbenz ND	ug/m3	0.311 ug/m3	N											4/3/2011	29.82209	-89.6086
5/3/2010	Air	V03-2010C V03	100-41-4	Ethylbenz ND	ug/m3	0.73 ug/m3	N											4/3/2011	29.31449	-89.3843





EPA Website

- On the positive side, the data that EPA were collecting were being posted
- They could be seen relatively quickly
- The challenges were that the data were not always correct, since so much of what was being posted was put there by hand. Unit errors made small values look like big problems. Largely, this was not noticed by the public.



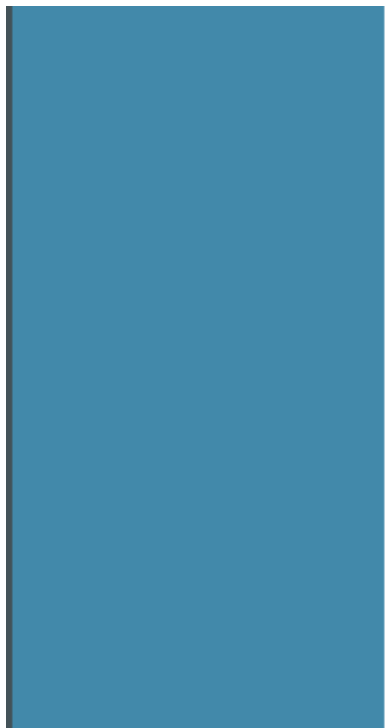


EPA Website

- The other big challenge was getting the public to the data that were available
- And once there, helping them understand the values that were posted



EPA Data Website



June 12 data (CSV) 23K June 12 data (PDF) 23K	route map	
June 11 data (csv) June 11 data (PDF) 25K	Louisiana route map	VOCs (air toxics)
June 6 data (csv) June 6 data (PDF) 48K	Mississippi, Alabama, and Florida route map	two chemicals found in dispersants
June 5 data (csv) June 5 data (PDF) 48K	Louisiana and Mississippi route map	two chemicals found in dispersants
June 4 data (csv) June 4 data (PDF) 48K	Louisiana and Mississippi route map	two chemicals found in dispersants
June 3 data (csv) June 3 data (PDF) 31K	Mississippi and Alabama route map	two chemicals found in dispersants
June 2 data (csv) June 2 data (PDF) 66K	Mississippi and Alabama route map	two chemicals found in dispersants
June 1 data (csv) June 1 data (PDF) 24K	Mississippi, Alabama and Florida route map	two chemicals found in dispersants



EPA TAGA Data

Date_Time	2-butoxyethanol (ppbv)	1-(2-butoxy-1- methylethoxy)-2- propanol (ppbv)	Latitude	Longitude
	Detection Limit = 0.353428 ppbv	Detection Limit = 0.009701 ppbv		
6/1/2010 15:32	0.385142	0.000535	30.442	-89.046374
6/1/2010 15:41	0.392027	0.000371	30.453787	-88.880839
6/1/2010 22:53	0.395887	0.00024	30.434402	-89.087769
6/1/2010 15:44	0.025157	0.011069	30.454359	-88.810122
6/1/2010 16:11	0.3771	0.000262	30.509224	-88.291733
6/1/2010 16:17	0.409667	0.000317	30.56597	-88.193558
6/1/2010 16:17	0.404445	0.000317	30.567638	-88.191289
6/1/2010 16:18	0.40454	0.000491	30.57939	-88.173286
6/1/2010 16:19	0.438314	0.000437	30.57953	-88.173012
6/1/2010 16:26	0.142772	0.012422	30.64612	-88.079181
6/1/2010 16:26	0.120124	0.016398	30.646278	-88.078989
6/1/2010 16:26	0.098828	0.019682	30.64644	-88.078802
6/1/2010 16:26	0.118709	0.019517	30.646606	-88.078619
6/1/2010 16:26	0.091943	0.013763	30.646776	-88.078438
6/1/2010 16:26	0.122312	0.015746	30.646949	-88.07826
6/1/2010 16:26	0.102173	0.011189	30.647124	-88.078084
6/1/2010 16:26	0.080362	0.010401	30.647299	-88.07791
6/1/2010 22:00	0.390933	0.000328	30.612499	-88.141778
6/1/2010 22:05	0.407592	0.000262	30.562535	-88.198716
6/1/2010 22:15	0.3771	0.00012	30.479542	-88.38836
6/1/2010 16:48	0.390096	0.000262	30.651539	-87.759976
6/1/2010 21:03	0.491349	0.000186	30.583596	-87.726497
6/1/2010 21:13	0.419237	0.000153	30.654579	-87.759816
6/1/2010 21:25	0.39949	0.000491	30.654586	-87.759819
6/1/2010 20:28	0.405662	0.000273	30.353738	-87.683069
6/1/2010 20:31	0.382891	0.000273	30.372048	-87.683093
6/1/2010 20:32	0.393957	0.000579	30.385546	-87.683306
6/1/2010 19:39	0.476877	0.000153	30.322007	-87.403239
6/1/2010 19:45	0.021554	0.024166	30.295092	-87.444738
6/1/2010 19:45	0.040084	0.025846	30.295072	-87.44492
6/1/2010 19:45	0.030432	0.011857	30.295052	-87.445103
6/1/2010 19:55	0.390096	0.000295	30.277513	-87.556457
6/1/2010 18:47	0.462984	0.000448	30.387421	-87.283231
6/1/2010 19:04	0.365172	0.001443	30.410746	-87.260956





Website TAGA data (now w/MDLs)

June 13 Alabama and Florida TAGA Results above Detection Limit

Date_Time	Benzene Avg. (ppb) Detection Limit = 9.8 ppbv	Toluene Avg. (ppb) Detection Limit = 7.5 ppbv	Xylene Avg. (ppb) Detection Limit = 2.2 ppbv	Latitude	Longitude
6/13/2010 15:01	ND	ND	3.179	30.31881	-87.2448
6/13/2010 15:01	ND	ND	3.402	30.31878	-87.2449
6/13/2010 15:01	ND	8.814	5.243	30.31875	-87.245
6/13/2010 15:01	ND	ND	3.872	30.31871	-87.2451
6/13/2010 15:01	ND	ND	3.918	30.31868	-87.2452
6/13/2010 15:01	ND	ND	2.401	30.31864	-87.2453
6/13/2010 15:01	ND	ND	2.281	30.3186	-87.2454
6/13/2010 15:01	ND	12.119	3.205	30.31802	-87.2482
6/13/2010 15:01	ND	13.202	4.148	30.31802	-87.2483
6/13/2010 15:01	ND	ND	3.367	30.31801	-87.2484
6/13/2010 15:12	11.508	ND	ND	30.33005	-87.292
6/13/2010 15:18	16.164	ND	ND	30.32765	-87.2924

DEP Website

Florida

Department of Environmental Protection

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Air Monitoring Data

Both the U.S. Environmental Protection Agency (EPA) and DEP put in place additional air monitoring in response to the Deepwater Horizon oil spill. Currently there is no active special air monitoring related to the spill. During the active response period, DEP conducted regular monitoring in Fort Walton Beach and Apalachicola (Eastpoint). All sampling results collected showed Volatile Organic Compounds (VOCs) values well below levels of concern for public health.

Complete data collected by DEP is available for [Fort Walton Beach](#) and [Apalachicola \(Eastpoint\)](#). EPA conducted daily monitoring in Pensacola and Panama City during the oil spill. EPA data is available at: www.epa.gov/bpspill/air.html. Regular air quality information and data is available on the DEP website at: www.dep.state.fl.us/air/quality/airdata.htm.



DEP staff member from the Bureau of Air Monitoring and Mobile Sources sets up canisters to conduct air sampling in Apalachicola.

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DEP Website

DEP TOXIC MONITORING	BP-OIL SPILL	SAMPLING DATES						
Ft. WALTON BEACH								
SITE:12-091-0002								
	24-hr SL							CONC(ppb)
COMPOUND	RO4 SL(ppb)	5/25	5/28	5/31	6/1	6/4	6/7	6/8
Benzene	9.00	0.14	0.08	0.2	0.2	0.1	0.16	
Bromomethane	50	1.6	0	0	0	0.02	0	
Carbon tetrachloride	30	0.1	0.08	0.1	0.1	0.1	0.08	
Chlorobenzene	2000	0.04	0.02	0	0.1	0.02	0.02	
Chloroethane	15000	0.08	0.04	0	0	0	0.02	
Chloroform	100	0	0	0	0	0	0	
Chloromethane	500	0.22	0	0.2	0	0	0	
1,2-Dichlorobenzene	300	0.04	0.02	0	0.1	0.02	0.02	
1,3-Dichlorobenzene	3000	0.04	0.02	0	0.1	0.02	0.02	
1,4-Dichlorobenzene	2000	0.04	0.04	0	0.1	0.02	0.04	
1,1-Dichloroethane	1000	0.04	0	0.06	0	0.02	0	
1,2-Dichloroethane	100	0.04	0	0.2	0	0.02	0.02	
1,1-Dichloroethene	20	0.04	0	0	0	0.06	0.04	
cis-1,2-Dichloroethene	200		0	0.1	0	0.02	0	
1,2-Dichloropropane	50	0.04	0.02	0	0.1	0.02	0	
cis-1,3-Dichloropropene	2	0.02	0.02	0	0	0.02	0	
trans-1,3-Dichloropropene	10	0.02	0	0.1	0	0.02	0	
Ethylbenzene	10000	0.08	0.04	0	0.1	0.04	0.06	
Methylene chloride	1000	2.4	0.08	0.2	1.7	0.08	0	
Styrene	2000	0.38	0.04	0.1	0.4	0.04	0.06	
1,1,2,2-TCE	20	0.02	0.02	0	0	0.02	0.02	
Tetrachloroethene(PERC)	200	0.06	0.02	0	0.1	0.12	0.02	
Toluene	1000	0.88	0.16	0.5	1	0.24	0.32	
1,1,1-Trichloroethane	2000	0.02	0	0	0	0.02	0	
1,1,2-Trichloroethane	100	0	0	0	0	0	0	
Trichloroethene	2000	0.04	0.02	0	0.1	0.02	0	
Trichlorofluoromethane	1000	0.24	0.22	0.4	0.1	0.22	0	
Vinyl chloride	1000		0.02	0	0	0.04	0	
o-xylene	2000	0.06	0	0	0.1	0.04	0.04	
m,p-xylene	2000	0.06	0.04	0.1	0.1	0.06	0.06	
Freon 114	1000000	0.06	0.04	0.1	0	0.06	0	
Freon 113	39000	0.1	0.08	0.1	0.1	0.1	0	
1,2-Dibromoethane	2	0.02	0.02	0.1		0.02	0.02	
1,3,5-Trimethylbenzene	25000		0.02	0	0.1	0.02	0.04	
1,2,4-Trimethylbenzene	25000	0.14	0.1	0.1	0.2	0.16	0.12	
1,3-Butadiene	100	0.06	0	0	0	0.06	0	
Dichlorodifluoromethane	400	0.84	0.46	0.3	0.3	0.68	0	
Hexachloro-1,3-butadiene	NA	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	300	0	0	0	0	0	0	
Acrolein	NA	0	0.02	0	0.2	0.18	0	





Complaints

- The only complaint that we in air received was about the stink
- The source of the stink was not identified
- Folks in LA who are used to the smell of petroleum products called it a stench, so we expect it was more than just petroleum

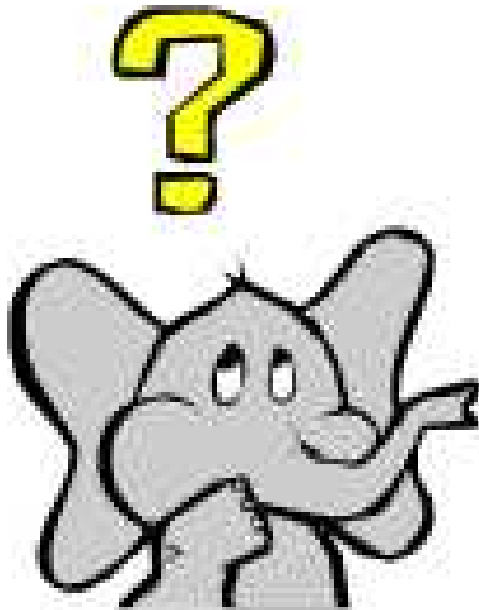


Lessons Learned

- Caution: What you start, you may not be permitted to end
- Patience is a virtue, but rare to find in a crisis



Comments or Questions



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